

# Commonly used medications associated with impaired physical function in older adults

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Older adults who take drugs designed to block the neurotransmitter acetylcholine – including common medications for incontinence, high blood pressure and allergies – are more likely to be dependent in one or more activities of daily living and to walk slower, according to new findings from researchers at Wake Forest University School of Medicine and colleagues.

The findings, which involve a class of drugs known as anticholinergic medications, are from the Ginkgo Evaluation of Memory Study (GEMS) and will be presented at the American Geriatrics Society Meeting in Washington, D.C., on May 3.

“These results were true even in older adults who have normal memory and thinking abilities,” said Kaycee M. Sink, M.D., M.A.S., lead author. “For older adults taking a moderately anticholinergic medication, or two or more mildly anticholinergic medications, their function was similar to that of someone three to four years older.”

In a separate study reported this month in the *Journal of the American Geriatrics Society*, Sink found that older nursing home residents who took medications for dementia and anticholinergic medications for incontinence at the same time had a 50 percent faster decline in function than those who were being treated only for dementia.

Over a year’s time, the decline would represent a resident going from requiring only limited assistance in an activity to being completely dependent, or from requiring only supervision to requiring extensive assistance in an activity.

Sink said that the two studies together suggest that physicians should carefully consider the implications when prescribing anticholinergic medications to older adults.

“Because these medications are so commonly prescribed, older adults who take multiple medications are at increased risk of taking one or more anticholinergic-containing medications,” said Sink. “The potential effects on physical function represent a significant public health problem.”

Many medications have anticholinergic properties including some for high blood pressure, some antidepressants, most allergy medicines and incontinence medicines. Some of the most common anticholinergics in the GEMS participants include the blood pressure medication nifedipine (Adalat® or Procardia®), which has mild anticholinergic properties, the stomach antacid ranitidine (Zantac®), which has moderate anticholinergic properties, and the incontinence medication tolterodine (Detrol®), which is highly anticholinergic.

In the GEMS study, the researchers sought to determine the effects of taking multiple anticholinergic drugs on walking speed and the ability to independently perform activities of daily living such as dressing, personal hygiene, toileting, transferring, bed mobility and eating as well as higher order activities including shopping, cooking, managing money, doing light housework and using a telephone.

The findings are from more than 3,000 people with an average age of 78 years. Almost half (40 percent) of participants were taking more than one anticholinergic drug. The researchers found that higher anticholinergic burden is associated with worse physical function, both self-reported and performance-based.

Source: Wake Forest University Baptist Medical Center

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